

AMENDMENTS TO THE SPECIFICATION

Please amend the specification as follows:

Amend paragraph [0004] beginning on page 1 line 30 as follows:

Patent document 1: JP H09(1997)-230353 A

Patent document 2: JP 2990270

Patent document 3: ~~JP 3113539~~ JP 3100339

Non-patent document 1: M. Schadt et al., Jpn.J.Appl.Phys., 31, p.2155-p.2164 (1992)

Non-patent document 2: M. Schadt, Nature, 381, p.212, (1996)

Non-patent document 3: M. Nishikawa et al., Liquid Crystals, 26, p.575-580 (~~1992~~ 1999)

Non-patent document 4: Kunihiro Ichimura, "Applied Physics" vol.62, No. 10, p.998
(1993)

Amend paragraph [0018] beginning on page 5 line 28 as follows:

[0018] The photoreactive material film can contain further a liquid crystalline compound as well as the photoreactive material. In this case, for example, the liquid crystalline material can be added further to the solution or melt of the photoreactive material.

Examples of the liquid crystalline compounds include liquid crystalline monomers, liquid crystalline oligomers and liquid crystalline polymers. The liquid crystalline monomers exhibit themselves liquid crystalline properties and examples thereof include azomethines, azoxys, cyanobiphenyls, cyanophenyl esters, benzoates, cyclohexane carboxylic acid phenyl esters, cyanophenyl cyclohexanes, cyano-substituted phenylpyrimidines,

alkoxy-substituted phenylpyrimidines, phenyldioxanes, tolans, and alkenylcyclohexylbenzonitriles. The liquid crystalline oligomers are not limited particularly, but an available example thereof is formed through polymerization of two to dozen or more of the above-mentioned liquid crystalline monomers, where the oligomer itself exhibits a liquid crystalline property. For the liquid crystalline polymers, conventionally-known polymers can be used without any particular limitations, but an available example is formed by polymerizing the liquid crystalline monomers to a higher degree than in the case of the liquid crystalline oligomer, where the polymer itself exhibits a liquid crystalline property. These liquid crystalline compounds can be used alone or can be mixed with at least one of the other liquid crystalline compounds. Examples of the mixture of two or more liquid crystalline compounds are described in JP 2000-517605 A 2002-517605A, and specific examples of the available mixtures are shown in the following Formulae (I), (II) and (III).

Amend paragraph [0023] beginning on page 7 line 26 as follows:

[0023] The photoreactive material can be, for example, a liquid crystalline monomer having a photoreactive site, a liquid crystalline oligomer having a photoreactive site, ~~and a~~ liquid crystalline polymer having a photoreactive site, and a non-liquid crystalline polymer having a photoreactive site. Examples of the liquid crystalline monomer, liquid crystalline oligomer ~~[[and]], liquid crystalline polymer, and a non-liquid crystalline polymer~~ are mentioned above.